## CLAIMS

1. A method for decreasing calorie intake in a subject, a method for decreasing appetite in a subject, a method for decreasing food intake in a subject, a method for weight control or treatment in a subject, or a method for reduction or prevention of obesity in a subject, which comprises peripherally administering a therapeutically effective amount of PYY or an agonist thereof and a therapeutically effective amount of GLP-1 or an agonist thereof to the subject.

2. A method for preventing and reducing weight gain in a subject; a method for inducing and promoting weight loss in a subject; or a method for reducing obesity in a subject as measured by the Body Mass Index, which comprises peripherally administering a therapeutically effective amount of PYY or an agonist thereof and a therapeutically effective amount of GLP-1 or an agonist thereof to the subject.

3. A method for controlling of any one or more of appetite, satiety and hunger in a subject, which comprises peripherally administering a therapeutically effective amount of PYY or an agonist thereof and a therapeutically effective amount of GLP-1 or an agonist thereof to the subject.

4. A method as claimed in claim 3 for inducing, increasing, enhancing or promoting satiety and/or sensations of satiety in a subject, which comprises peripherally administering a therapeutically effective amount of PYY or an agonist thereof and a therapeutically effective amount of GLP-1 or an agonist thereof to the subject.

5. A method as claimed in claim 3 for reducing, inhibiting or suppressing hunger or sensations of hunger in a subject, which comprises peripherally administering a therapeutically effective amount of PYY or an agonist thereof and a therapeutically effective amount of GLP-1 or an agonist thereof to the subject.

6. A method for maintaining desired body weight, a desired Body Mass Index, and/or a desired appearance and good health in a subject, which comprises peripherally administering a therapeutically effective amount of PYY or an agonist thereof and a therapeutically effective amount of GLP-1 or an agonist thereof to the subject.

7. A method for improving lipid profile in a subject, which comprises peripherally administering a therapeutically effective amount of PYY or an agonist thereof and a therapeutically effective amount of GLP-1 or an agonist thereof to the subject.

8. A method for alleviating a condition or disorder which can be alleviated by reducing nutrient availability, which comprises peripherally administering a therapeutically effective amount of PYY or an agonist thereof and a therapeutically effective amount of GLP-1 or an agonist thereof to the subject.

9. A method as claimed in any one of claims 1 to 8, wherein the PYY or agonist thereof and the GLP-1 or agonist thereof are administered simultaneously or sequentially.

10. A method as claimed in any one of claims 1 to 9, wherein the PYY and the GLP-1 are administered via different routes.

11. A method as claimed in any one of claims 1 to 10, wherein the subject is overweight.

12. A method as claimed in any one of claims 1 to 11, wherein the subject is obese.

13. A method as claimed in any one of claims 1 to 12, wherein the subject is diabetic.

14. A method as claimed in any one of claims 1 to 13, wherein peripheral administration comprises subcutaneous, intravenous, intramuscular, intranasal, transdermal or sublingual administration.

15. A method as claimed in any one of clams 1 to 14, wherein peripherally administering PYY or the agonist thereof comprises administering about 45 to about 135 pmol per kilogram body weight of the subject.

16. A method as claimed in claim 15, wherein peripherally administering PYY or the agonist thereof comprises administering about 72 pmol per kilogram body weight of the subject.

17. A method as claimed in claim 15, wherein peripherally administering PYY or the agonist thereof comprises administering about 45 to about 135 pmol per kilogram body weight of the subject at least 30 minutes prior to a meal.

18. A method as claimed in any one of claims 1 to 14, wherein peripherally administering the therapeutically effective amount of PYY or the agonist thereof comprises administering PYY or an agonist thereof to the subject in a multitude of doses, wherein each dose in the multitude of doses comprises administration of about 0.5 to about 135 pmol per kilogram of body weight at least about 30 minutes prior to a meal.

19. A method as claimed in any one of claims 1 to 18, wherein the PYY or the agonist thereof is administered in an amount sufficient to decrease calorie intake for a period of at least about 2 hours.

20. A method as claimed in any claim 19, wherein the PYY or the agonist thereof is administered in an amount sufficient to decrease calorie intake for a period of about 2 to 12 hours.

21. A method as claimed in any one of claims 1 to 14, wherein the PYY or

agonist thereof is administered peripherally at a dose of 0.1 nmoles per kg body weight of the subject or more, for example, 0.2 nmoles or more, for example, 0.4 nmoles or more, for example, 0.6 nmoles or more, for example, 0.8 nmoles or more, for example, 1.0 nmole or more, for example, 1.2 nmoles or more, for example, 1.4 nmoles or more, for example, 1.6 nmoles or more, for example, 1.8 nmoles or more, for example, 2.0 nmoles or more, for example, 2.2 nmoles or more, for example, 2.4 nmoles or more, for example, 2.6 nmoles or more, for example, 2.8 nmoles, for example, 3.0 nmoles or more, for example, up to 3.2 nmoles per kg body weight.

22. A method as claimed in any one of claims 1 to 14 or claim 21, wherein the PYY or agonist thereof and/or the GLP-1 or agonist thereof is administered peripherally in an amount of up to 3.0 nmoles per kg body weight, for example, up to 2.8 nmoles, for example, up to 2.6 nmoles, for example, up to 2.4 nmoles, for example, up to 2.2 nmoles, for example, up to 2.0 nmoles, for example, up to 1.8 nmoles, for example, up to 1.4 nmoles, for example, up to 1.2 nmoles, for example, up to 1.0 nmoles, for example, up to 0.8 nmoles, for example, up to 0.6 nmoles, for example, up to 0.4 nmoles, for example, up to 0.2 nmoles per kg body weight.

23. A method as claimed in any one of claims 1 to 14, 21 and 22, wherein the GLP-1 or agonist thereof is administered peripherally at a dose of 0.1 nmoles per kg body weight of the subject or more, for example, 0.2 nmoles or more, for example, 0.4 nmoles or more, for example, 0.6 nmoles or more, for example, 0.8 nmoles or more, for example, 1.0 nmole or more, for example, 1.2 nmoles or more, for example, 1.4 nmoles or more, for example, 1.6 nmoles or more, for example, 1.8 nmoles or more, for example, 2.0 nmoles or more, for example, 2.2 nmoles or more, for example, 2.4 nmoles or more, for example, 2.6 nmoles or more, for example, 2.8 nmoles, for example, 3.0 nmoles or more, for example, up to 3.2 nmoles per kg body weight.

24. A method as claimed in any one of claims 1 to 14 and 21 to 23, wherein the GLP-1 or agonist thereof is administered peripherally in an amount of up to 3.0 nmoles per kg body weight, for example, up to 2.8 nmoles, for example, up to 2.6

nmoles, for example, up to 2.4 nmoles, for example, up to 2.2 nmoles, for example, up to 2.0 nmoles, for example, up to 1.8 nmoles, for example, up to 1.4 nmoles, for example, up to 1.2 nmoles, for example, up to 1.0 nmoles, for example, up to 0.8 nmoles, for example, up to 0.6 nmoles, for example, up to 0.4 nmoles, for example, up to 0.2 nmoles per kg body weight.

25. A method as claimed in any one of claims 1 to 24, wherein the PYY agonist comprises a molecule that specifically binds the Y2 receptor.

26. A method as claimed in claim , wherein the PYY agonist increases the expression of c-fos in a section of an arcuate nucleus contacted with the compound.

27. A method as claimed in any one of claims 1 to 24, wherein the PYY agonist specifically binds to a neuropeptide Y neuron and inhibits an activity of a neuropeptide Y neuron.

28. A method as claimed in claim 27, wherein the PYY agonist decreases the action potential firing rate of the neuropeptide Y neuron.

29. A method as claimed in claim 27, wherein the neuropeptide Y neuron synapses with a proopiomelanocortin neuron, and wherein binding of the PYY agonist to the neuropeptide Y neuron results in an increased activity of the proopiomelanocortin neuron.

30. A method as claimed in claim 27, wherein the decreased activity of the neuropeptide Y neuron results in an increase in action potential firing on the proopiomelanocortin neuron.

31. A method as claimed in any one of claims 1 to 30, wherein the GLP-1 agonist is exendin-4 or a derivative thereof that is a GLP-1 agonist.

32. A method as claimed in any one of claims 1 to 31, further comprising

administering a therapeutically effective amount of amfepramone (diethylpropion), phentermine, mazindol, phenylpropanolamine, fenfluramine, dexfenfluramine, or fluoxetine

33. A method as claimed in any one of claims 1 to 32, wherein the subject is human.

34. Use of PYY and an agonist thereof and GLP-1 or an agonist thereof for the manufacture of a medicament or medicaments for use in a method as defined in any one of claims 1 to 33.

35. Use of PYY and an agonist thereof in the manufacture of a medicament for use, in combination with GLP-1 or an agonist thereof, in a method for decreasing calorie intake in a subject, a method for decreasing appetite in a subject, a method for decreasing food intake in a subject, a method for weight control or treatment in a subject, or a method for reduction or prevention of obesity in a subject.

36. Use of PYY and an agonist thereof in the manufacture of a medicament for use, in combination with GLP-1 or an agonist thereof, in a method for preventing and reducing weight gain in a subject; a method for inducing and promoting weight loss in a subject; or a method for reducing obesity in a subject as measured by the Body Mass Index .

37. Use of PYY and an agonist thereof in the manufacture of a medicament for use, in combination with GLP-1 or an agonist thereof, in a method for controlling of any one or more of appetite, satiety and hunger in a subject.

38. Use of PYY and an agonist thereof in the manufacture of a medicament for use, in combination with GLP-1 or an agonist thereof, in a method for inducing, increasing, enhancing or promoting satiety and/or sensations of satiety in a subject.

39. Use of PYY and an agonist thereof in the manufacture of a medicament for

use, in combination with GLP-1 or an agonist thereof, in a method for reducing, inhibiting or suppressing hunger or sensations of hunger in a subject.

40. Use of PYY and an agonist thereof in the manufacture of a medicament for use, in combination with GLP-1 or an agonist thereof, in a method for maintaining desired body weight, a desired Body Mass Index, and/or a desired appearance and good health in a subject.

41. Use of PYY and an agonist thereof in the manufacture of a medicament for use, in combination with GLP-1 or an agonist thereof, in a method for improving lipid profile in a subject

42. Use of PYY and an agonist thereof in the manufacture of a medicament for use, in combination with GLP-1 or an agonist thereof, in a method for alleviating a condition or disorder which can be alleviated by reducing nutrient availability.

43. Use as claimed in any one of claims 31 to 41, wherein the PYY or agonist thereof and the GLP-1 or agonist thereof are administered simultaneously, or sequentially in either order.

44. A pharmaceutical composition comprising PYY and an agonist thereof and GLP-1 or an agonist thereof, in admixture or conjunction with a pharmaceutically suitable carrier.

45. A pharmaceutical composition comprising PYY or an agonist thereof in admixture with a pharmaceutically suitable carrier, in a form suitable for subcutaneous administration

46. A pharmaceutical composition as claimed in claim 45, which comprises 10 nmoles or more, for example, 20 nmoles or more, for example, 30 nmoles or more, for example, 40 nmoles or more of PYY or an agonist thereof.

47. A pharmaceutical composition as claimed in claim 46, which comprises from 20 to 60 nmoles, for example, 35 to 45 nmoles of PYY or an agonist thereof.

48. A pharmaceutical composition as claimed in claim 45, which comprises from PYY or an agonist thereof in an amount suitable for administration peripherally in an amount of up to 3.0 nmoles per kg body weight, for example, up to 2.8 nmoles, for example, up to 2.6 nmoles, for example, up to 2.4 nmoles, for example, up to 2.2 nmoles, for example, up to 2.0 nmoles, for example, up to 1.8 nmoles, for example, up to 1.4 nmoles, for example, up to 1.2 nmoles, for example, up to 1.0 nmoles, for example, up to 0.8 nmoles, for example, up to 0.6 nmoles, for example, up to 0.4 nmoles, for example, up to 0.2 nmoles per kg body weight.

49. A pharmaceutical composition as claimed in claim 45, which comprises from PYY or an agonist thereof in an amount suitable for administration peripherally in an amount of 0.1 nmoles per kg body weight of the subject or more, for example, 0.2 nmoles or more, for example, 0.4 nmoles or more, for example, 0.6 nmoles or more, for example, 0.8 nmoles or more, for example, 1.0 nmole or more, for example, 1.2 nmoles or more, for example, 1.4 nmoles or more, for example, 1.6 nmoles or more, for example, 1.8 nmoles or more, for example, 2.0 nmoles or more, for example, 2.2 nmoles or more, for example, 2.4 nmoles or more, for example, 2.6 nmoles or more, for example, 2.8 nmoles, for example, 3.0 nmoles or more, for example, up to 3.2 nmoles per kg body weight.

50. A pharmaceutical composition as claimed in claim 48 or 49, in unit dosage form.

51. A method as defined in any one of claims 1 to 8, which comprises administering PYY or an agonist thereof subcutaneously at a dose of 10 nmoles or more, for example, 20 nmoles or more, for example, 30 nmoles or more, for example, 40 nmoles or more to the subject of the method.

52. A method as claimed in claim 51, wherein from 20 to 60 nmoles, for

example, 35 to 45 nmoles of PYY or an agonist thereof are adminisntered.

53. Use of PYY or an agonist thereof for the manufacture of a composition for subcutaneous administration to a subject for treatment of the subject by a method as defined in any one of claims 1 to 8.

54. Use as claimed in claim 53, wherein the treatment comprises administering PYY or an agonist thereof subcutaneously at a dose of 10 nmoles or more, for example, 20 nmoles or more, for example, 30 nmoles or more, for example, 40 nmoles or more to the subject.

55. Use as claimed in claim 54, wherein the treatment comprises administering PYY or an agonist thereof subcutaneously at a dose of from 20 to 60 nmoles, for example, 35 to 45 nmoles to the subject.

56. Use as claimed in claim 53, wherein the PYY or agonist thereof is administered peripherally at a dose of 0.1 nmoles or more per kg body weight of the subject, for example, 0.2 nmoles or more, for example, 0.4 nmoles or more, for example, 0.6 nmoles or more, for example, 0.8 nmoles or more, for example, 1.0 nmole or more, for example, 1.2 nmoles or more, for example, 1.4 nmoles or more, for example, 1.6 nmoles or more, for example, 1.8 nmoles or more, for example, 2.0 nmoles or more, for example, 2.2 nmoles or more, for example, 2.4 nmoles or more, for example, 2.6 nmoles or more, for example, 2.8 nmoles, for example, 3.0 nmoles or more, for example, up to 3.2 nmoles per kg body weight.

57. Use as claimed in claim 53 or claim 56, wherein the PYY or agonist thereof is administered peripherally in an amount of up to 3.0 nmoles per kg body weight, for example, up to 2.8 nmoles, for example, up to 2.6 nmoles, for example, up to 2.4 nmoles, for example, up to 2.2 nmoles, for example, up to 2.0 nmoles, for example, up to 1.8 nmoles, for example, up to 1.4 nmoles, for example, up to 1.2 nmoles, for example, up to 1.0 nmoles, for example, up to 0.8 nmoles, for example, up to 0.6

nmoles, for example, up to 0.4 nmoles, for example, up to 0.2 nmoles per kg body weight.

5